

CLEAN VERSION OF PENDING CLAIMS

SYSTEM FOR SCHEDULED CACHING OF IN-BAND DATA SERVICES

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Sub #1 1. A computerized-system for scheduled caching of in-band data broadcast in a channel comprising:
a real-time scheduling process; and
a user initiated scheduling process operable for determining a scheduled time and channel for an in-band data broadcast, wherein the in-band data broadcast comprises electronic program guide data, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process is operable for powering-on the tuning circuitry, for instructing tuner circuitry to tune to the scheduled channel, for receiving the in-band data from the tuning circuitry regardless of the presence of a user, and for storing the in-band data for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user.

2. The computerized-system of claim 1, wherein the scheduling process is further operable for retrieving the scheduled time and channel from a source.

3. The computerized-system of claim 2, wherein the source is an in-band data broadcast.

4. The computerized-system of claim 1, wherein the caching process is further operable for parsing the in-band data from other content broadcast in the channel.

5. The computerized-system of claim 3, wherein the in-band data is broadcast in a vertical blanking interval of a television channel.

6. The computerized-system of claim 5, wherein the in-band data is broadcast in a portion of a digital satellite transmission channel.

Sub 72
62
9. A method of scheduled caching of in-band data broadcast in a channel comprising the steps of:

determining a schedule for the in-band data broadcast, wherein the in-band data broadcast comprises electronic program guide data, and wherein the schedule comprises a time and a channel, said determining being initiated by a user;

instructing tuning circuitry to power-on and to tune to the schedule channel at approximately the schedule time;

receiving the in-band data broadcast in the schedule channel regardless of the presence of a user; and

storing the in-band data on mass storage for subsequent retrieval and viewing or use by a user.

10. The method of claim 9, wherein the step of determining a time and channel comprises the steps of:

displaying a plurality of schedules to a user for selection; and

determining the time and the channel from the schedule selected by the user.

11. The method of claim 10, wherein the step of determining a time and channel comprises the steps of:

determining a source for the schedule; and

retrieving the schedule from the source.

12. The method of claim 11, wherein the source for the schedule is in-band broadcast data.

13. The method of claim 9, wherein the step of receiving the in-band data further comprises the step of parsing the in-band data from other content broadcast in the channel.

15. A computer-readable medium having computer-executable instructions stored thereon for performing steps comprising:

- determining a schedule for the in-band data broadcast, wherein the in-band data broadcast comprises electronic program guide data, and wherein the schedule comprises a time and a channel, said determining being initiated by a user;
- instructing tuning circuitry to power-on and to tune to the schedule channel at approximately the schedule time;
- receiving the in-band data broadcast in the schedule channel regardless of the presence of the user; and
- storing the in-band data on mass storage for subsequent retrieval and viewing or use by the user.

16. A digital processing system comprising:

- a processor having real time clock circuitry;
- tuning circuitry for powering-on and for tuning and receiving broadcast transmissions, the tuning circuitry communicatively coupled to the processor;
- a computer-readable medium communicatively coupled to the central processor;

and

a scheduled caching program executed from the computer-readable medium by the processor, wherein the scheduled caching program initiated by a user causes the real-time clock circuitry to schedule a subsequent execution of the scheduled caching program at approximately a scheduled time and the subsequent execution of the scheduled caching program, regardless of the presence of the user, instructs the tuning circuitry to power-on and to tune to a channel, receives in-band data from the tuning circuitry, wherein the in-band data comprises electronic program guide data, and stores the in-band data for subsequent processing for subsequent retrieval and viewing or use by the user.

17. The digital processing system of claim 16, wherein the scheduled caching program parses the in-band data from other content broadcast in the channel.

18. The digital processing system of claim 16, wherein the scheduled time and the channel are selected by a user of the digital processing system from a plurality of data service schedules.

19. The digital processing system of claim 18, wherein the scheduled caching program retrieves one of the data service schedules from an in-band source.

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21. A computerized-system for scheduled caching of in-band data broadcast in a channel comprising:
a real-time scheduling process; and
a user-initiated scheduling process having means for determining a scheduled time and channel for an in-band data broadcast, wherein the in-band data broadcast comprises electronic program guide data, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process has means for instructing tuner circuitry to power-on and to tune to the scheduled channel regardless of the presence of a user, for receiving the in-band data from the tuning circuitry, and for storing the in-band data for subsequent processing.

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22. The computerized-system of claim 21, wherein the scheduling process further has means for retrieving the scheduled time and channel from a source.

23. The computerized-system of claim 21, wherein the caching process further has means for parsing the in-band data from other content broadcast in the channel.

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25. An information handling system comprising:
a tuner capable of powering-on, the tuner further being tunable to a plurality of channels; and
a scheduler configured to determine a scheduled time and a scheduled channel from the plurality of channels for receiving information associated with the scheduled

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channel, the information comprising in-band information including electronic program guide data, the operation of said scheduler being initiated by a user,

wherein the tuner powers-on and tunes to the scheduled channel at approximately the scheduled time, regardless of the presence of the user, to receive the information associated with the channel.

28. The information handling system of claim 25, wherein the information further comprises Internet-related information.

29. The information handling system of claim 25, wherein the scheduler comprises:
a real-time scheduling process; and
a scheduling process which determines the scheduled time and the scheduled channel, and invokes the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process instructs the tuner to tune to the scheduled channel, receives the information associated with the scheduled channel from the tuner, and stores the information for subsequent processing.

30. The information handling system of claim 29, wherein the scheduling process retrieves the scheduled time and the scheduled channel from information received from one of the plurality of channels.

31. The information handling system of claim 29, wherein the caching process powers-on the tuner.

32. A computer-readable medium having computer-executable instructions stored thereon for performing steps comprising:
determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, the information comprising in-band information including electronic program guide data, said determining being initiated by a user; and
instructing a tuner to power-on and to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the

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COP. scheduled channel, regardless of the presence of the user, and store the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user.

E8 35. The information handling system of claim 32, wherein the information further comprises internet-related information.

E9 36. A method for handling information comprising the steps of:
determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, the information comprising in-band information including electronic program guide information, said determining being initiated by a user; and

instructing a tuner to power-on and to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel, regardless of the presence of the user, and store the information associated with the channel for subsequent processing.

E10 Sub 37 39. The information handling system of claim 37, wherein the information further comprises internet-related information.

Sub 38 40. An information handling system comprising:
a tuner having means for powering-on and means for tuning to a plurality of channels; and

E11 a scheduler having means configurable for determining a scheduled time and scheduled channel to receive and store information associated with the scheduled channel, the information comprising in-band information including electronic program guide information, the operation of said scheduler being initiated by a user,

wherein the means for powering-on powers-on the tuner and the means for tuning tunes to the scheduled channel at approximately the scheduled time to receive the information associated with the channel, regardless of the presence of the user, and stores

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the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user.

612 43. The information handling system of claim 40, wherein the information further comprises internet-related information.

613 44. The computerized system of claim 1 wherein the electronic program guide data originates from multiple sources.

45. The computerized system of claim 1 wherein the user initiated scheduling process is capable of causing the real time scheduling process to schedule multiple executions of the caching process.